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Corruption and the Desire to Leave Quasi-Experimental Evidence on Corruption as a Driver of Emigration Intentions

Abstract

Whether and to what extent corruption drives emigration has received growing attention in the literature in recent years, yet the nature of the relationship remains unclear. To test causal claims, we rely on representative global survey data of more than 280,000 respondents across 67 countries from 2010 to 2014. We use two different measures of emigration intentions and individual, as well as country-level measures of corruption, and propose to instrument the endogenous presence of corruption in a country with the prevalence of cashless transactions in the economy to correct for potential estimation bias. We find robust support for the hypothesis that corruption increases emigration intentions across countries. The effect, however, is likely to be underestimated in conventional models that do not account for endogeneity. The results highlight the need to look beyond purely economic, social, security-related, and environmental drivers when assessing the root causes of migration.

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1 Introduction

In the introduction to the 2004 UN Convention against Corruption, then Secretary-General Kofi Annan called corruption as "an insidious plague that has a wide range of corrosive effects on societies. It undermines democracy and the rule of law, leads to violations of human rights, distorts markets, erodes the quality of life and allows organized crime, terrorism and other threats to human security to flourish" (UNODC, 2004). This study analyzes whether emigration should be added to the list of adverse corruption effects. We investigate whether the prevalence of corruption in a country affects an individual's intentions to emigrate. In times of increasing migratory behavior, understanding the role of political drivers in countries of origin—such as corruption—concerning commonly studied drivers, such as economic differences and social networks, is crucial. Previous studies have found that corruption is associated with higher levels of emigration (e.g., Dimant et al., 2013; Lapshyna, 2014; Poprawe, 2015; Cooray and Schneider, 2016). We aim to put forward available evidence by addressing three limitations of the emerging literature on the link between corruption and emigration.

First, most studies use migration rates or flows as the dependent variables (Dimant et al., 2013; Poprawe, 2015; Cooray and Schneider, 2016). Observable migration, however, may be an imperfect measure. The flows that are officially recorded in harmonized international migration statistics do not reflect those that aspire to migration but cannot (for various) reasons and those that do migrate but may not appear in official statistics (Carling, 2002; Carling and Schewel, 2018). In this article, we instead study emigration *intentions* by relying on two items, the first measuring aspirations, the second measuring the expression of concrete plans to emigrate. Focusing on intentions allows us to focus on the effect of corruption at the first step of the migration process—the decision to migrate.

Second, the most existing comparative studies largely base their inference on aggregated, country-level information. Therefore, the mechanisms operating at the individual level remain unclear. Our analyses cover microlevel survey data of more than 280,000 respondents across 67 countries from 2010 to 2014 (Gallup World Poll). This data allow us not only to include two country-level composite measures of corruption (V-Dem, Global Governance Indicators) but also to introduce microlevel measures of perceptions and beliefs. Furthermore, our data allow us to control for a wide array of alternative individual push factors.

Finally, we aim to provide insights on the causal nature of the link between corruption and emigration to strengthen the key assumption underlying this growing field of research. Given the limited data that so far has been available to researchers, most existing studies have been correlational. We propose to instrument the endogenous presence of corruption in a given country with the importance of cashless transactions in the economy. Our 2SLS model adds a more robust test of the effect of corruption on emigration aspirations to the existing literature.

Our results support claims that corruption causally drives emigration aspirations. This relationship remains robust against different operationalization, measurements, and alternative model specifications. The average estimated effect of corruption is sizable, suggesting that reducing corruption in the world's most corrupt countries could shape future migration. The findings also suggest that conventional migration models may underestimate the impact of corruption when estimation bias is not addressed.

In terms of policy implications, our findings bear the relevance for policymakers in the field of international cooperation on development and migration. Migration has become an

important topic linked to international negotiations on trade and development aid. The recent introduction of positive and negative conditionalities, for instance regarding cooperation between the EU and African countries in the field of migration, represents a relevant example. The EU engages partner countries on curbing irregular migration and facilitating readmission in return for development aid and trade liberalizations. Yet, governments at the negotiation table may themselves be contributing to out-migration by failing to curb corruption (Concord, 2018; Conte, 2018; D'Humières, 2018). Rather than trade liberalizations and aid, in the light of our findings, the fight against corruption may itself be a relevant condition for international cooperation.

2 The corruption-migration relationship

Corruption is commonly defined as the abuse of entrusted authority for illicit gain (NORAD, 2009). This abuse of authority may occur in different forms, such as bribery, embezzlement, fraud, extortion, or favoritism (ibid.). While it has been argued that corruption may be endemic to any kind of organized human communal life (Nye, 1967), there is a large variation in its prevalence and the forms it takes across countries (World Bank, 2018a). General agreement exists that while corruption may be individually beneficial in the short term, in the long run, corruption has destabilizing effects on society and development. If and how corruption influences migration is subject to a growing body of research, situated in the larger and longstanding literature on so-called push-and-pull factors (Lee, 1966; Black et al., 2011; Carling and Talleraas, 2016; Arango, 2017).

The most important push factors include the economic situation of a country or region (income differentials, inequality, and poverty), insecurity and conflict (including ethnic conflict and gang violence), and environmental degradation. Colonial ties, family relations, and economic opportunities, on the other hand, are important pull forces (Ashby, 2010; Nejad and Young, 2010; Warner et al., 2010; Black et al., 2011; Castles et al., 2014; Carling and Talleraas, 2016; Arango, 2017). Reports by field practitioners and qualitative research, however, support the assertion that the aforementioned factors cannot fully explain migration flows (e.g., Danziger, 2018). In response, scholars have recently steered attention toward political factors, such as political freedom or governance, as potential migration drivers (Wheatland, 2015; Merkle et al., 2017).

Carling (2002) and Carling and Schewel (2018) further refine the push-and-pull model by proposing an "aspiration/ability model." This model differentiates between two separate components: the evaluation of migration as a potential course of action ("aspiration") and the potential to realize mobility at a given moment ("ability"). Both aspirations and ability are functions of micro and macro-level factors on the personal, sociocultural, or economic level, and both components may be affected by the immigration drivers listed earlier. In other words, given structural and individual resources and opportunities, among those who *aspire* to migrate, only some have the *ability* to do so, which then manifests in their actual, observable migration.

Corruption is likely to affect aspirations *and* ability, albeit mechanisms may differ between the two. With regard to *ability*, previous studies have found that corruption may help circumventing legal obstacles to both voluntary or involuntary migration. For instance, Ivlevs

and King (2017) argue that widespread corruption among government immigration officials or border guards—both in origin and destination countries—may increase the ability to migrate because the possibility to bribe officials can open otherwise closed doors. With regard to forced migration, Skrivankova et al. (2011) emphasize that corruption facilitates human trafficking. Their findings are supported by several studies stressing that organized crime benefits substantially from corrupted institutions (e.g., Richards, 2004; Carling, 2006; Bales, 2011; Rusev, 2013; Shelley, 2014).

Corruption is also likely to affect emigration *aspirations* in several ways. Corruption hampers economic growth, efficiency, and investment (Mauro, 1995; Méon and Sekkat, 2005),[1] and economic deprivation is known to fuel emigration aspirations. Cooray and Dzhumashev (2018) show that emigration may also be related to the negative effect of corruption on the labor market such as the reduction in labor force participation rates, increases in tax burden and the shadow economy. By increasing the level of economic uncertainty, corruption may also create incentives for the residents to leave for other countries where the level of uncertainty is lower (Dzhumashev, 2016).

Corruption also lowers returns on education, as educational attainment alone does not necessarily suffice anymore to secure a job or a contract (Dimant et al., 2013). Lower returns on education, in turn, are also known to drive emigration desires (Ariu and Squicciarini, 2013). Finally, in corrupt countries, the allocation of resources within a state is likely to shift. Mauro (1995) argues that corrupt politicians spend more public means in sectors that allow for secretly levying large bribes. Accordingly, social policies, like education, will receive less financial support, while other sectors, like defense, will thrive.

Taken together, these mediating factors, such as poor economic performance, lower returns to education, a lack of public investment, and impaired institutions, are widely acknowledged to stimulate emigration (Lee, 1966; Rowlands, 1999; Black et al., 2011; Carling and Talleraas, 2016; Arango, 2017). The prevalence of emigration aspirations is, therefore, likely to increase in corrupt societies due to the detrimental effects corruption has on general economic and societal circumstances.

Corruption may, however, also stimulate emigration aspirations through another channel. Apart from a marginal fraction of a society that benefits from a corrupt and dysfunctional system, the majority experiences corruption as obstructive and costly. This idea is supported by case studies that suggest corruption is often perceived to hinder personal and professional freedom and development (Mullan, 2006; Malaj and de Rubertis, 2017; Kalachev, 2018; Traikova et al., 2018) and, therefore, causes frustration with what is seen to be an unfair system (Clausen et al., 2011). This erodes an individual's beliefs in meritocracy and with that the belief in social and/or economic mobility in the future. In its essence, corruption depletes individual optimism and the belief that merit is adequately rewarded and, as a consequence, spurs an individual's desire for change, potentially through emigration.

In sum, corruption may positively affect both emigration aspirations and ability through several different mechanisms. Results of existing empirical studies support this assumption (Dimant et al., 2013; Lapshyna, 2014; Poprawe, 2015; Cooray and Schneider, 2016). Building on this literature, we aim to address some of the pending limitations in this emerging field.

1 Note that some authors find that corruption may also have positive side effects, for instance, Méon and Weill (2010) and Dreher and Gassebner (2013).

Previous studies have predominantly analyzed how corruption affects international migration flows (see e.g., Dimant et al., 2013; Poprawe, 2015; Cooray and Schneider, 2016[2]). Aggregate flows, however, capture only those people who can realize their desire to emigrate. By definition, the number of people who wish to leave always exceeds those who possess the necessary resources or ability to do so (Tjaden et al., 2018). Analyzing actual migration flows, thus, likely underestimates the influence of corruption on the desire to emigrate across the whole population (Docquier et al., 2014). Analyzing aspirations separately allows for assessing how contextual factors incite the willingness to leave, independent of the ability to act upon that desire. Analyzing aspirations also captures those individuals who may only be able to realize their aspiration using irregular paths of entry. This is even more relevant because a sizable share of (regional) migration is irregular, which is not accounted for in official migration statistics.

In addition to the conceptual issues of disentangling aspirations and ability, other issues need to be addressed. Studies on the corruption–migration relationship covering multiple countries base their inference on aggregated country-level information (e.g., Lapshyna, 2014; Cooray and Schneider, 2016). Therefore, the mechanisms operating at the individual level remain a black box. Those studies that take individual experiences and perceptions into account are often based on single-country or small-N case studies (e.g., Mullan, 2006; Malaj and de Rubertis, 2017; Traikova et al., 2018; Kalachev, 2018).

Finally, most research so far has been limited to correlational analyses (e.g., Carling et al., 2015; Poprawe, 2015). Even when additional, intervening drivers are taken into account, the endogenous presence of corruption in a country is likely to bias estimates. Yet, clarity about the causal nature of the corruption-emigration nexus is crucial to allow for further developments in this line of research.

The following analysis aims to contribute to the study of the migration-corruption nexus by strengthening assumed, but largely untested, causal claims and by considering both individual and country-level mechanisms. Our findings bear the relevance for policymakers in the field of international relations where migration is becoming an increasingly important piece in government negotiations on trade and development aid.

3 Data and identification

We use representative, repeated cross-sectional data covering 67 countries[3] from 2010 to 2014 provided by the Gallup World Poll (GWP, 2015). We test the effect of corruption on emigration intentions by combining micro-level information for more than 280,000 individuals with macro-level country characteristics and two instruments to account for endogenous corruption prevalence.

We use the term intention as an umbrella term. Individual-level emigration intentions Y are in fact captured using two different survey items. The first is a measure of aspiration[4]: "Ideally, if you had the opportunity, would you like to move permanently to another country, or

2 A notable exception is Lapshyna 2014, who's analyses are however confined to the Ukraine.

3 As emphasized by Foadi (2006), corruption as a push-factor for migration is not necessarily bound to developing countries, but can also influence emigration from developed countries. Accordingly, we include all countries surveyed by Gallup with respective questions on emigration aspirations and available corruption information.

4 According to Carling and Schewel (2018) the term migration 'aspirations' is interchangeable with migration 'wishes' or 'desires'.

would you prefer to continue living in this country?" The second measure refers to a concrete plan and time frame: "Are you planning to move permanently to another country in the next 12 months, or not?" We argue that the second measure captures not only aspiration but, to an extent, also ability based on the assumption that those individuals who perceive themselves to be able to realize a move are more likely to state having a concrete plan in a specific time frame. Neither measure captures whether or not the aspiration to leave materializes. As argued earlier, independent of a person leaving, we test whether corruption affects the intention to do so in the first place.

To measure corruption, we implement a two-tiered approach. In most existing studies, corruption is measured by external assessments (e.g., Dimant et al., 2013) or hybrid indices that combine expert opinions with survey data to estimate a country's level of corruption (e.g., Ahmad, 2001; Ahmad and Arjumad, 2016). We follow this approach and include measures of corruption at the country-level. We use Coppedge et al.'s (2018) V-Dem 8 index for regime corruption, which is constructed from V-Dem's measures for executive embezzlement, executive bribes, legislative corruption, and judicial corruption. This continuous index ranges from 0 to 1, with higher values indicating higher levels of regime corruption. As a check for measurement robustness, we estimated all models with the inverse of the World Bank's World Governance Indicators' assessment of corruption control in a given year (World Bank, 2018a rescaled from 0 to 1; e.g., Svensson, 2005) and Transparency Internationals Corruption Perception Index (CPI) (Transparency International, 2018). All estimations are robust with regard to the country-level measure used. In the text, we report the results using the V-Dem indicator. The results for WGI and CPI are found in Appendices C and D.

Alongside country-level measures of corruption, we add individual perception measures. Although country-level measures undeniably provide highly valuable and comparative information on the prevalence of corruption at the country level, within the same country, there are differences between individuals with regard to the degree they encounter or perceive corruption (e.g., Treisman, 2007).[5] Importantly, we argue that both the individual perception of corruption and country-level prevalence affect the desire to leave. The individual-level perception variables function as a proxy for direct exposure to corruption (having to bribe someone or witness incidents). They are measured using the following binary items: "Is corruption widespread throughout the government in this country, or not?" and "Is corruption widespread within businesses located in this country, or not?" (1 if either government or business is perceived to be corrupt). To our knowledge, GWP data is the only source for individual perceptions with comprehensive country coverage (cf. Merkle et al., 2017).[6] We always include the country-level corruption measures alongside the individual-level measures, to ensure that corruption perception is compared across individuals that are situated in similar contexts.

To further approximate the effect of corruption on emigration intentions at the individual level, we introduce a dummy for agreement with the statement that hard work brings success: "Can people get ahead in this country by working hard or not?" The logic behind including this

5 Empirically, the V-Dem indicator for corruption is moderately positively correlated with the 6-year average share of respondents who believe their country to be corrupt (correlation coefficient = 0.538).

6 The GWP includes a number of other measures of corruption, among them "Was there at least one instance in the last 12 months when you had to give a bribe or present, or not?" which is a more direct measure of exposure to corruption. However, all of the other corruption measures were unfortunately only asked for a limited number of countries and years, thus now allowing for larger scale comparative analyses.

as a proxy for corruption experience is that exposure to corruption decreases returns on education, hinders promotions at the workplace, and imposes constraints on individual efforts (e.g. Dimant et al., 2013). We expect that people who are affected by corrupt practices in some way or the other are less likely to agree with the statement that hard work pays off. At the country level, the share of people disagreeing with 'hard work pays off' is positively correlated with the country's V-Dem level of corruption (see Figure A1 in Appendix).

Subsequently, we add several individual-level controls $\boldsymbol{X}_j'$, including standard socioeconomic characteristics, as specified in previous studies (e.g., Castles et al., 2014; Poprawe, 2015): gender, age, educational attainment (three-level), whether the person is single (unmarried) and if they have minor children. The corresponding summary statistics can be found in Table A1 in Appendix. We further control for the respondent's urban or rural area of residence and proxy economic wellbeing with household income (population quintiles). As a key potential pull factor of migration, GWP allows for the consideration of individual connections abroad by accounting for having relatives or "someone who I can rely on" living in another country. We also control for a country-level index measuring political stability and the absence of violence and terrorism (World Bank, 2018a; see also Dimant et al., 2013),[7] and whether the country was involved in an armed conflict with more than 25 battle-related deaths in a given year based on the UCDP/PRIO (2018) armed conflict dataset (Gleditsch et al., 2002). As a more general measure of stability, institutional quality and personal freedom, we further introduce the Cato institute's Human Freedom Index (Vásquez and Porčnik, 2019). As stressed for instance by Merkle et al. (2017), controlling for regime aspects is important because high levels of corruption weaken institutions, which in turn is often associated with unstable and undemocratic regimes. Furthermore, we include controls for the log GDP per capita in 2010 USD, income inequality by the country's GINI index, and financial development to account for economic development. A full list of sampled countries as well as their respondents' mean levels of emigration desires and plans is shown in Table A2 in Appendix.

We do not include destination country characteristics in our model, although destination characteristics and a proxy for the cost of migration play an important role in gravity models estimating actual migration flows (e.g., Grogger and Hanson, 2011; Ortega and Peri, 2013). As we analyze emigration intentions, however, our sample includes individuals who do *not* state any desire to leave and thus, also do not have a preferred destination. Furthermore, among those expressing a desire to leave, not everybody has a clear notion of their preferred destination. Finally, assessments of preferred destinations would be biased by subjective beliefs and incomplete information (for instance regarding employment regulation at the destination, or opportunities in general). Therefore, we define our emigration model as

$$Y_{jit} = \boldsymbol{X}_j'\beta + C_{it}\tau + \hat{B}_{jit}\varphi + u_{it}\delta + \varepsilon_{jit} \tag{1}$$

where the individual probability of expressing emigration intentions Y_j in country i at time t is a function of a set of individual socioeconomic characteristics $\boldsymbol{X}_j'$, the country's level of corruption C_{it} at time t, the individual belief regarding the level of corruption in the country $\hat{B}_{jit}$ at time t, additional country characteristics u_{it}, and an error term. However, ordinary

7 WGI-polstab measures the perception of the likelihood of political instability and/or politically motivated violence, including terrorism.

least squares will produce misleading results if corruption is correlated with the error term. This might be the case for many reasons: Apart from the fundamental concern of omitting variables that simultaneously affect emigration aspirations and corruption, causality may run from emigration aspirations to corruption and not vice versa. This concern would, in fact, be more pronounced if we were to analyze actual migration flows, for instance. Abdih et al. (2012) find that migrant remittances increase corruption in their origin countries. There is also some evidence that causality could run from emigration intentions to corruption as a rent-seeking practice, as highlighted by Mariani (2007).

To approach these endogeneity concerns, we follow an instrumental variable approach as has been widely adopted in migration research (e.g., Altonji and Card, 1991; for an overview see also Jaeger et al., 2018). Cooray and Schneider (2016) have recently estimated the effect of corruption on aggregated migration flows into 20 OECD countries with the geographical distance to the equator of the country of origin as an instrument. We argue that the effect of corruption on emigration, when corruption is instrumented by latitude, is biased by other channels through which latitude may be correlated with the error term.[8] Hence, we propose the importance of cashless payment systems in the economy as an alternative measure. In addition, we instrument corruption with the level of corruption in 1950 (initial corruption), as has been done, for instance, by Gupta et al. (2002) and Cooray and Schneider (2016).

The identifying assumption is that a nation's reliance on cashless payment negatively affects (money-related) corruption because paper-trails render bribery more difficult (e.g. Tanzi, 1998). Vice versa, an economy that relies more heavily on cash transfers offers more opportunities for (financial) corruption. Payments can be hidden, and documentation is more difficult to track compared to electronic payments. Ayoola (2014) demonstrates this relationship using the example of Nigeria where a cashless policy was recently initiated to curb corruption (see also Mieseigha and Ogbodo, 2013). Similarly, the government of India banned the vast majority of the nation's banknotes with the stated goals of fighting corruption (Shendge et al. 2017; Pal et al., 2018).

On the other hand, whether cash or electronic payments prevail in a country of origin is arguably not a decisive factor for migration aspirations. However, it is conceivable that there may be an indirect effect of the instrument on the dependent variable running through economic performance (e.g., Altunbas and Thornton, 2011; Gupta et al., 2009; Huang 2010). We thus include controls on financial and economic development. The adoption of cheque, card, and electronic money in several European Union countries between 2000 and 2012 has led to (moderate) economic growth in the long run (Tee and Ong, 2016). Positive short-run effects have also been observed in the wake of a more recent major policy shift towards a cashless economy in Nigeria (Mieseigha and Ogbodo, 2013). As was argued earlier, economic development is an important driver of migration. Hence, in our 2SLS model, we account for the potentially confounding channel of cashless payments on migration through economic performance by controlling for GDP per capita (log). Furthermore, cashless payments could also be positively related to financial development, which has been shown to facilitate migration (e.g., Rozelle et

8 Geographical distance measures have experienced extensive use as explanation for various outcomes. For instance, La Porta et al. (1999) show that the quality of government increases with increasing distance from the equator. Sachs (2001), in turn, links economic development to climatic zones and Gupta et al. (2002) use latitude and level of democracy to instrument the effect of corruption on income inequality and poverty. Arguably, corruption is related to all of the above, that is, government performance, economic development, income inequality, and poverty.

al., 1999). We thus include the International Monetary Fund's index of financial development in our estimations (IMF, 2018).

We utilize information on the importance of cashless payment systems from the World Bank's Global Payment Systems Survey (GPSS) (World Bank, 2018b). To minimize biased estimates resulting from measurement errors, we introduce two different instruments that follow the same logic but capture different dimensions of the cashless economy: first, we introduce the number of debit/credit/e-money accounts per capita (IV-accounts) as a baseline. The number of accounts each resident holds on average can be regarded as a proxy of how widespread cashless transfers are in a country. Hence, the IV-accounts can be regarded as the underlying capability of a population to use electronic payment systems. As an alternative, we measure the value of cashless payments relative to the Gross Domestic Product in a given year (IV-value). This share shall denote the importance of the cashless sector in a given country reflected in monetary terms.

Accordingly, we argue that payment modalities together with initial corruption address the potential endogeneity/measurement error in the country's corruption level by instrumenting C_{st} such that

$$Y_{jit} = \boldsymbol{X}_j^{'}\beta + \hat{C}_{it}\tau + \hat{B}_{jit}\varphi + u_{it}\delta + \varepsilon_{jit} \tag{2}$$

where $\hat{C}_{it}$ indicates the predicted values from the first stage regression

$$C_{jit} = \boldsymbol{X}_j^{'}\beta + IV_{it}\tau + u_{it}\delta + \varepsilon_{jit} \tag{3}$$

The proposed instruments pass all established tests for validity and strength, as we will demonstrate in section 4 below.[9]

4 Empirical results

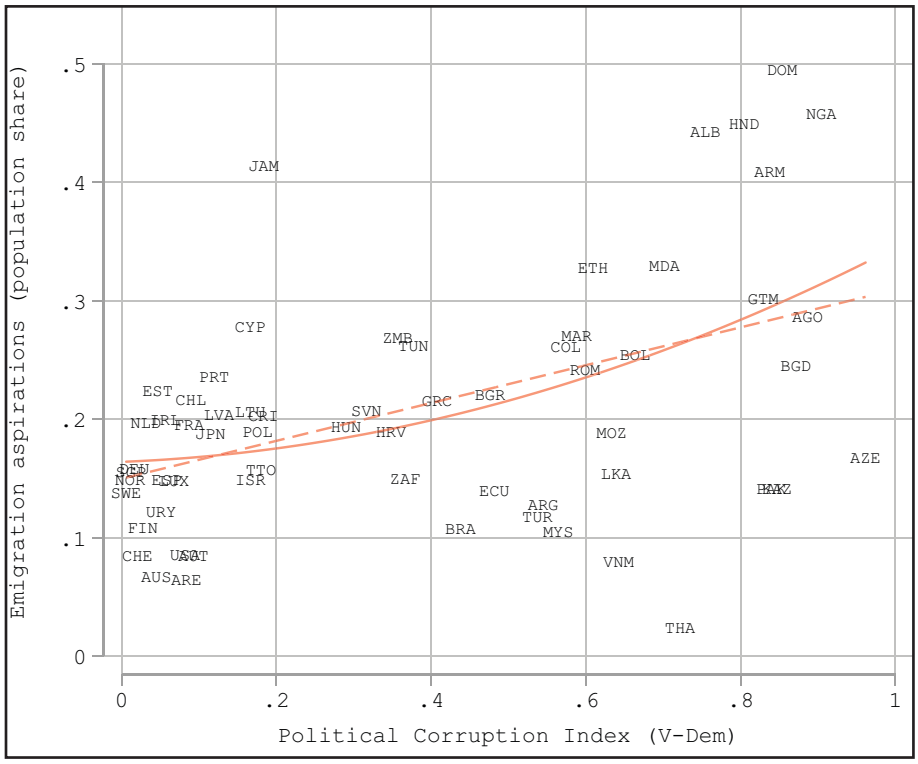
A first look at the bivariate relationship between corruption levels and levels of emigration aspirations at the country level supports previous findings. Figure 1 shows the descriptive relationship between a country's level of corruption (V-DEM) and the share of residents with emigration aspirations (both measured at the 5-year country average 2010–2014). The overall relationship is positive, with countries ranking lowest on the corruption scale, such as Australia or Sweden, having emigration aspiration rates below 20% of the representative sample, while in more corrupt countries—despite larger variation—up to 50% of the sample shows a desire to leave the country.

In Table 1, we present the estimated corruption coefficients for *emigration aspirations*. We follow a stepwise logic of assessing the robustness of the corruption effect.[10] Model 1 includes only the country-level covariates, whereas Model 2 adds individual-level controls. This increases the explained variance, indicating that in line with existing literature, individual characteristics are highly relevant for emigration aspirations. Including these individual-level

9 Note that information on cashless payment is not fully available. However, there is no systematic pattern regarding which country has available information on cashless payment. Moreover, OLS estimates do not change decisively if the sample is not restricted to available cashless payment information.

10 Reported standard errors are clustered at the country-year level, since we have repeated-cross sections, that is, individual observations within a country are independent from each other.

Figure 1 Relationship of corruption and share of people with migration aspirations.



controls, however, does not change the coefficient size for country-level corruption. Adding the two individual corruption perception measures in Model 3, however, decreases the effect of country-level corruption. Both individual perception of corruption and the disbelief that hard work pays off are significantly related to emigration aspirations, indicating that personal beliefs and experience play a role in explaining how corruption affects emigration aspirations. Higher perception of corruption increases the desire to emigrate, whereas the belief that hard work pays off decreases that desire.

Our main 2SLS specifications are presented in Models 4 and 5, where we instrument corruption in a current year with IV accounts (Model 4) and IV value/GDP (Model 5), together with initial corruption. The full regression results can be found in Table B1 in Appendix. The results of the IV regression show an effect of corruption on emigration aspirations of approximately the size of the OLS estimates when using the value of cashless payments as an instrument. The effect is twice as high than the OLS estimates, however, when instrumenting endogenous corruption with the number of cashless accounts (Model 4). This seems to support the endogeneity assumption: (adjusted) OLS underestimates the effect of corruption on emigration because of potentially unmeasured confounders (e.g., Hogan and Lancaster, 2004). Table 1 further reports a series of tests for the instruments' validity and strength (cf. Baum et al., 2007). The statistically significant first stage coefficients indicate that both measures of a cashless economy as well as corruption in 1950 are associated with a lower (for corruption in 1950: higher) level of corruption in the country. All instruments also stand the tests for identifying restrictions.

The country-level measure of corruption is a decisive push-factor for emigration aspirations across all specifications. All other covariates have effects in the expected direction (see Table B1 in Appendix). Adding the perception proxy to the model, that is, whether the respondent thinks that the government and/or businesses are corrupt, ensures that the coefficient of

Table 1 Effect of level of corruption on emigration aspirations

	OLS			IV	
				Accounts[b]	Value/GDP[c]
OLS	**(1)**	**(2)**	**(3)**	**(4)**	**(5)**
Corruption[a]	0.162*** (0.038)	0.167*** (0.036)	0.143*** (0.035)	0.370** (0.164)	0.167* (0.093)
Corruption perception			0.056*** (0.004)	0.050*** (0.005)	0.056*** (0.005)
Disagree: hard work pays off			0.067*** (0.005)	0.062*** (0.007)	0.067*** (0.006)
Individual covariates	No	Yes	Yes	Yes	Yes
Country covariates	Yes	Yes	Yes	Yes	Yes
Adjusted R^2	0.029	0.086	0.095	0.087	0.095
Observations	282,381	282,381	282,381	282,381	282,381
First stage					
Accounts/value				−0.012* (0.007)	−0.037*** (0.008)
Level of corruption 1950[a]				0.146*** (0.048)	0.196*** (0.045)
Weak identification					
Kleibergen-Paap F statistic				9.220	30.326
Under-identifying restrictions					
Kleibergen-Paap LM stat.				5.361	26.680
Endog. regressors joint sig.					
Anderson-Rubin F statistic				2.164	2.055

*$p < 0.10$, **$p < 0.05$, ***$p < 0.01$.

[a]V-Dem Political corruption index.

[b]IV accounts: log no. of debit/credit/e-money accounts per capita.

[c]IV value: log monetary value of cashless payments relative to GDP.

Note: Robust SE in parentheses clustered at country-year level.

Source: V-Dem, World Bank, UN, UCDP, GWP, Cato, weighted data, own calculations.

the country-level measure is not distorted by variation in individual exposure to corruption. Moreover, keeping the overall corruption level in a country at the mean, perceiving the government to be corrupt has a significant effect in both 2SLS models. Similarly, individual disagreement with the statement that hard work is rewarded—a fact that is more likely to be given in more corrupt countries—consistently increases emigration intentions. Hence, the results indicate that emigration desire is driven by both, country-level prevalence and individual beliefs about or experiences of corruption.

The estimated 2SLS coefficient for cashless accounts amounts to 0.370 and 0.167 for the value of cashless payments, respectively, for a change in corruption level from 0 to 1. To illustrate the effect sizes, let us assume that normalized values from 0 to 1 describe the percentage of corruption in a country: If the corruption level in (a counterfactual) Nigeria would decrease by 50 percentage points (from 90 to 40%, approximately the corruption level

of South Africa), the predicted share of individuals with emigration desires would fall by up to one quarter, from 46% to a share between 27 and 37% of the adult population. In contrast, should Germany—ceteris paribus—experience a drastic deterioration in its corruption level from 2% to South Africa's current level (37%), we would expect the share of the adult population with a desire to emigrate to jump from 16 to level between 22 and 29%.

Moving from aspirations to a model that also incorporates the ability to some extent, we report the estimated corruption coefficients for *plans to emigrate in the next 12 months* in Table 2 (see Appendix B2 for full regression table). Estimating the effect on corruption on concrete emigration intentions serves as a robustness check, but also allows us to draw some conclusions with regard to the aspiration-ability nexus. Table 2 shows that the size of the coefficient decreases for all the corruption measures. Corruption thus seems to have a stronger influence on aspiration than on concrete plans. The explained variance decreases substantially, too. This

Table 2 Effect of level of corruption on plans to emigrate in the next 12 months

	OLS			IV	
				Accounts[b]	Value/GDP[c]
OLS	**(1)**	**(2)**	**(3)**	**(4)**	**(5)**
Corruption[a]	0.020** (0.009)	0.019** (0.008)	0.016** (0.008)	0.105** (0.041)	0.050** (0.020)
Corruption perception			0.006*** (0.001)	0.004*** (0.001)	0.006*** (0.001)
Disagree: hard work pays off			0.008*** (0.001)	0.006*** (0.002)	0.008*** (0.001)
Individual covariates	No	Yes	Yes	Yes	Yes
Country covariates	Yes	Yes	Yes	Yes	Yes
Adjusted R^2	0.005	0.023	0.025	0.018	0.022
Observations	282,381	282,381	282,381	282,381	282,381
First stage					
Accounts/value				−0.012* (0.007)	−0.037*** (0.008)
Level of corruption 1950[a]				0.146*** (0.048)	0.196*** (0.045)
Weak identification					
Kleibergen-Paap F statistic				9.220	30.326
Under-identifying restrictions					
Kleibergen-Paap LM stat.				5.361	26.680
Endog. regressors joint sig.					
Anderson-Rubin F statistic				5.789	5.408

*$p < 0.10$, **$p < 0.05$, ***$p < 0.01$.

[a]V-Dem Political corruption index.

[b]IV accounts: log no. of debit/credit/e-money accounts per capita.

[c]IV value: log monetary value of cashless payments relative to GDP.

Note: Robust SE in parentheses clustered at country-year level.

Source: V-Dem, World Bank, UN, UCDP, GWP, Cato, weighted data, own calculations.

could be interpreted as evidence that ability is not affected by corruption to the same degree as aspiration, i.e. that corruption increases dissatisfaction, but does not necessarily enable emigration. This result, however, warrants further analyses.

To test the stability of our results, we perform a series of robustness checks. First, we re-estimate all models using different measures of country-level corruption. Appendix C shows the full 2SLS results when replacing V-Dem corruption with the inverse of "control of corruption" from the World Governance Indicators (WGI, World Bank, 2018a; see Table C1 in Appendix for desire and Table C2 in Appendix for intentions). Except for the fact that (endogenous) corruption renders statistically insignificant results in the full OLS-model (3), all other coefficients remain stable. We also perform the analyses using the Corruption Perception Index on the country-level (Transparency International, 2018). Note that CPI and WGI depict a very strong correlation. Hence, the coefficients are again robust to this alternative specification as shown in Tables D1 and D2 in Appendix.

Last, we perform several sub-sample analyses presented in Table E1 in Appendix. The effect runs in the same direction across all sub-samples, that is, higher endogenous corruption is associated with higher emigration desire/intentions when instrumented with cashless payment systems. However, based on effect sizes and their robustness, it seems that the corruption-emigration relationship is mainly driven by poorer and economically unequal countries (Models 3,4 and 7,8). This could be driven by the fact that corruption and therewith its detrimental impact is more prevalent among poorer and unequal countries. Interestingly, the effect is stronger across more politically stable countries (Models 9,10), which one could explain with generally high emigration aspirations across countries stricken by conflict and instability. In other words, the absence of economic opportunities and the perception of unfair returns may by superimposed by more substantial threats to live and belongings as an emigration driver.

Overall, our results support claims of a causal relationship between corruption and emigration intentions. We demonstrate that the corruption effect stands the test of quasi-experimental approaches using a set of innovative instruments with the number of accounts capable of cashless payments and the value of cashless payments relative to the country's GDP. We argue that both instruments are meaningful and report a series of successful testing of their power and validity. We can show that models without correction for endogeneity are likely to underestimate the effect. In sum, the prevalence of corruption in a country induces emigration intentions, which—on average—are associated with increased migration flows (e.g., Tjaden et al., 2018).

5 Conclusions

The necessity to account for politics and institutions in origin countries when trying to explain emigration has been pointed out by many researchers (e.g., Wheatland, 2015; Merkle et al., 2017). Among the political drivers that have been examined, corruption is increasingly gaining attention. Our results show a sizable effect of corruption on two different measures of emigration intention that is robust against a comprehensive range of individual-level and country-level controls and includes careful consideration of alternative drivers such as poverty, conflict, and social ties, among others. The 2SLS results based on global micro-level data confirm previous findings (Dimant et al., 2013; Lapshyna, 2014; Carling et al., 2015; Poprawe, 2015;

Cooray and Schneider, 2016) and generate confidence that the individual probability of wishing and planning to emigrate is causally related to the prevalence of corruption in the country. The results also show that the corruption effect is likely to be underestimated when endogeneity is not addressed appropriately.

Providing reliable evidence on the link between corruption and emigration is a crucial step forward for the academic study of migration. The results provide researchers with more confidence that corruption effects are not statistical artifacts and deserve further exploration. Corruption indices may also be a useful addition to general migration models aiming at predicting flows or investigating other migration drivers.

Understanding the relationship between corruption and emigration is also important for policymakers in countries of origin and countries of destination alike. From the destination countries' perspective, EU policy-makers, for instance, have stressed the need to address "root causes" of irregular migration in light of increased immigration in recent decades (European Commission, 2018). In addition, there is growing attention to supporting improvements in governance in origin countries through conditional development assistance.

However, our analysis does not come without limitations. First and foremost, our sample does not cover all countries. In providing empirical evidence for 67 countries across the globe, we reach beyond most existing research; yet, the data still represents approximately a 37% sample of the global population. Secondly, it has to be taken into account that our dependent variables—emigration desires and plans—warrant attention per se, as they are an approximation of actual migration, although we argue that both reflect a valid measure to test corruption effects. Additionally, recent research has shown that the correlation between intentions and flows is very strong (e.g., Tjaden et al., 2018). Thirdly, our ability to capture the direct effect of corruption is limited, as perceptions are likely to be correlated, but not necessarily identical with actual experiences. Under certain circumstances, such perception measures may even be preferable for estimating migration intentions, but inferences about the direct effect of corruption have to be drawn with care. Additionally, the definition of corruption and its measure is always imprecise to a certain extent. As stressed by Cheng and Zaum (2008) for the policy sphere, it is plausible that the GWP individual-level measure of corruption perception depicts a "catch-all" term, including aspects beyond a close definition, such as mismanagement or dysfunctional rule of law. This is also partly true for macro-level measures such as the WGI which—among other sources—rely on survey information when assessing a country's level of corruption. However, by accounting for both measures, subjective corruption perception and V-DEM as an external proxy, we seek to address criticism regarding the shortcomings of using either measures of perceived or of actual (experienced) corruption (e.g., Treisman, 2007; Donchev and Ujhelyi, 2014; Jahedi and Méndez, 2014).

Despite these limitations, our study contributes to the field by strengthening its main underlying assumption, that corruption indeed triggers emigration intentions. We improve the robustness of OLS estimates on the effect of corruption on emigration aspirations by means of an improved 2SLS identification to draw causal inferences. Moreover, by systematically combining individual- with country-level assessments of corruption and by estimating the effect on two different layers of emigration intentions (aspirations vs. plans), we are able to further investigate the mechanism at play. Overall, corruption deserves more scholarly and policy attention as an important push factor of migration.

Declarations

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Availability of data and material

Restrictions apply to the availability of the data used under license from Gallup for this study.

Competing interests

The authors declare that they have no competing interests.

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Authors' contributions

JT had the initial idea. DA, FR, JT designed the study. DA elaborated identification and performed the analysis. DA, FR, JT wrote the paper.

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Appendix

A Descriptive and bivariate statistics

Figure A1 Relationship between corruption perception and notion that hard work is rewarded.

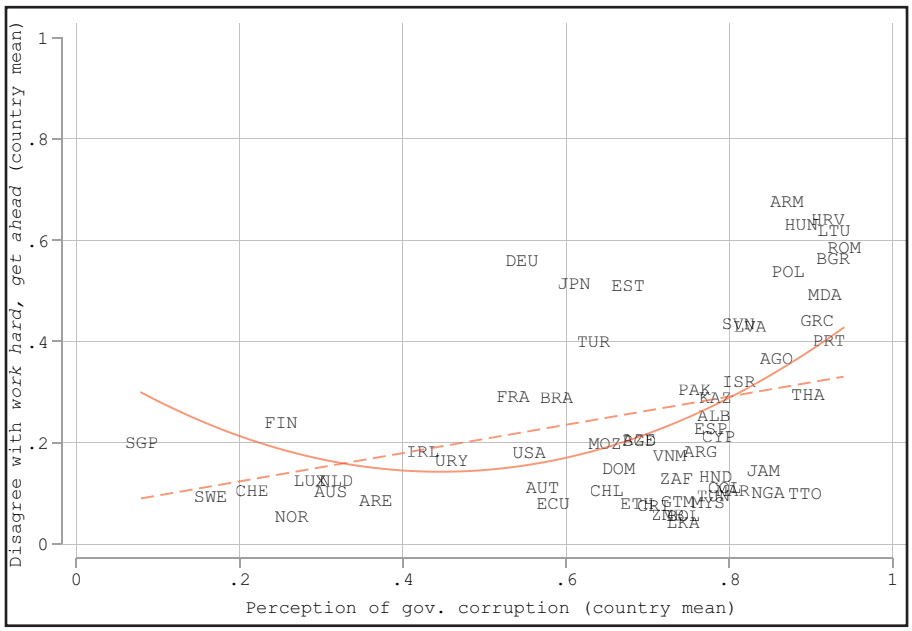

Table A1 Summary statistics

	Mean	SD	Min	Max	Source	Definition
Emigration desire	0.21	0.41	0.00	1.00	GWP	"Ideally, if you had the opportunity, would you like to move permanently to another country, or would you prefer to continue living in this country?"
Emigration plans	0.02	0.14	0.00	1.00	GWP	"Are you planning to move permanently to another country in the next 12 months, or not?"
Level of corruption (V-Dem)	0.40	0.31	0.00	1.00	V-Dem	Index of regime corruption (executive embezzlement, executive bribes, legislative corruption, and judicial corruption)
Initial corruption (1950, V-Dem)	0.37	0.27	0.00	1.00	V-Dem	Corruption index from the year 1950.
Inverse of corruption control WGI	0.51	0.25	0.00	1.00	WB	Inverse of the World Bank Governance Indicator's assessment of corruption control.
Inverse of corruption control CPI	0.52	0.23	0.00	1.00	TI	Index of perceived level of public sector corruption.
Corruption perception	0.68	0.47	0.00	1.00	GWP	"Is corruption widespread throughout the government in this country, or not?" and "Is corruption widespread within businesses located in this country, or not?"
Disagree with "*Work hard, get ahead*"	0.27	0.44	0.00	1.00	GWP	"Can people get ahead in this country by working hard or not?"
Female	0.55	0.50	0.00	1.00	GWP	Gender

(*Continued*)

Table A1 (*Continued*)

	Mean	SD	Min	Max	Source	Definition
Age	43.68	17.81	15.00	99.00	GWP	Age in years
Lower education	0.26	0.44	0.00	1.00	GWP	Three-level educational attainment measure.
Medium education	0.56	0.50	0.00	1.00	GWP	Three-level educational attainment measure.
Higher education	0.18	0.39	0.00	1.00	GWP	Three-level educational attainment measure.
Single	0.28	0.45	0.00	1.00	GWP	Person is unmarried.
No children	0.56	0.50	0.00	1.00	GWP	Person does not have minor children.
Urban location	0.43	0.50	0.00	1.00	GWP	Urban area of residence.
Income: Poorest 20% of the country	0.18	0.38	0.00	1.00	GWP	Household income per population quintile.
Income: Second 20% of the country	0.18	0.39	0.00	1.00	GWP	Household income per population quintile.
Income: Middle 20% of the country	0.20	0.40	0.00	1.00	GWP	Household income per population quintile.
Income: Fourth 20% of the country	0.21	0.41	0.00	1.00	GWP	Household income per population quintile.
Income: Richest 20% of the country	0.23	0.42	0.00	1.00	GWP	Household income per population quintile.
Know family/friends abroad	0.31	0.46	0.00	1.00	GWP	"Do you have relatives or someone whom you can rely on living in another country?"
Political Stability	0.03	0.90	−2.80	1.00	WB	Index of perceptions of the likelihood of political instability and/or politically-motivated violence, including terrorism
Human Freedom Index	7.40	0.92	5.1	9	Cato	Index of personal, civil, and economic freedom. Human freedom, understood as the absence of coercive constraint.
Conflict (>25 BRD)	0.13	0.33	0.00	1.00	UCDP	Was the country involved in an armed conflict with more than 25 battle-related deaths in a given year?
GDP per capita (log)	9.69	0.89	6.50	11.00	WB	GDP per capita.
Gini index	0.47	0.09	0.30	1.00	GWP	GINI coefficient calculated from GWP household income per capita.
Financial development	0.45	0.23	0.10	1.00	WB	Index (financial depth, access, efficiency, and stability for the financial institutions and financial markets)
IV cashless accounts p.c. (log)	1.20	1.16	0.00	12.00	WB	Number of cashless transactions per capita.
IV value of payments/GDP (log)	−0.62	1.40	−6.30	2.00	WB	Value of cashless payments by GDP per capita.
Observations	282,381					

Source: V-Dem, World Bank, UN, UCDP, GWP, Cato, weighted data, own calculations.

Table A2 Country coverage 2010–2014 and share of respondents with emigration desire/plans

Country	Desire	Plans	Country	Desire	Plans
Albania	0.444	0.045	Liberia	0.533	0.141
Angola	0.287	0.012	Lithuania	0.207	0.030
Argentina	0.129	0.007	Luxembourg	0.148	0.010
Armenia	0.409	0.055	Malaysia	0.106	0.014
Australia	0.068	0.005	Moldova	0.331	0.037
Austria	0.086	0.005	Morocco	0.271	0.021
Azerbaijan	0.168	0.012	Mozambique	0.189	0.008
Bangladesh	0.245	0.012	Netherlands	0.198	0.007
Bolivia	0.255	0.039	Nigeria	0.458	0.063
Brazil	0.108	0.006	Norway	0.149	0.007
Bulgaria	0.221	0.027	Pakistan	0.142	0.012
Chile	0.217	0.015	Peru	0.294	0.028
Colombia	0.262	0.033	Philippines	0.160	0.017
Costa Rica	0.203	0.020	Poland	0.190	0.019
Croatia	0.190	0.013	Portugal	0.236	0.020
Cyprus	0.279	0.025	Romania	0.242	0.023
Dominican Republic	0.496	0.052	Singapore	0.156	0.010
Ecuador	0.140	0.015	Slovenia	0.208	0.008
Estonia	0.225	0.025	South Africa	0.150	0.014
Ethiopia	0.328	0.040	Spain	0.150	0.020
Finland	0.109	0.009	Sri Lanka	0.154	0.010
France	0.196	0.011	Sweden	0.139	0.006
Georgia	0.150	0.009	Switzerland	0.085	0.002
Germany	0.159	0.004	Thailand	0.025	0.001
Greece	0.216	0.030	Trinidad and Tobago	0.158	0.015
Guatemala	0.302	0.043	Tunisia	0.262	0.033
Honduras	0.450	0.064	Turkey	0.119	0.008
Hungary	0.194	0.024	United Arab Emirates	0.065	0.004
Ireland	0.200	0.016	United Kingdom	0.261	0.008
Israel	0.150	0.008	United States	0.086	0.003
Jamaica	0.415	0.080	Uruguay	0.122	0.013
Japan	0.188	0.001	Vietnam	0.081	0.006
Kazakhstan	0.142	0.008	Zambia	0.270	0.028
Latvia	0.204	0.029			

Source: GWP, own calculations.

B **Full regression tables**

Table B1 Full regression table for emigration desire

	OLS			IV: Accounts[b]		IV: Value/GDP[c]	
				2nd stage	1st stage	2nd stage	1st stage
	(1)	(2)	(3)	(4a)	(4b)	(5a)	(5b)
Corruption[a]	0.162***	0.167***	0.143***	0.370**		0.167*	
	(0.038)	(0.036)	(0.035)	(0.164)		(0.093)	
IV: accounts and value					−0.012*		−0.037***
					(0.007)		(0.008)
IV: corruption 1950					0.146***		0.196***
					(0.048)		(0.045)
Corruption perception			0.056***	0.050***	0.018***	0.056***	0.016**
			(0.004)	(0.005)	(0.007)	(0.005)	(0.007)
Disagree w/work hard,…			0.067***	0.062***	0.026***	0.067***	0.015**
			(0.005)	(0.007)	(0.008)	(0.006)	(0.007)
GDP p.c. (log)	−0.033**	−0.036**	−0.033**	−0.022	−0.035	−0.032**	−0.025
	(0.014)	(0.014)	(0.014)	(0.018)	(0.026)	(0.015)	(0.023)
GINI	0.210***	0.106*	0.159***	0.160***	0.014	0.159***	0.134
	(0.054)	(0.054)	(0.055)	(0.057)	(0.106)	(0.054)	(0.110)
Financial development	−0.156***	−0.086**	−0.072**	−0.013	−0.244***	−0.066	−0.144*
	(0.038)	(0.037)	(0.036)	(0.058)	(0.073)	(0.041)	(0.076)
Political stability	−0.016	−0.012	−0.006	0.007	−0.042*	−0.005	−0.050**
	(0.014)	(0.014)	(0.014)	(0.017)	(0.024)	(0.014)	(0.024)
Conflict (>25 BRD)	−0.076***	−0.078***	−0.074***	−0.077**	0.021	−0.074***	0.003
	(0.026)	(0.027)	(0.026)	(0.030)	(0.041)	(0.026)	(0.042)
Human Freedom Index	0.090***	0.094***	0.083***	0.115***	−0.137***	0.086***	−0.144***
	(0.012)	(0.012)	(0.011)	(0.025)	(0.025)	(0.017)	(0.024)
Female		−0.029***	−0.031***	−0.031***	−0.000	−0.031***	−0.000
		(0.003)	(0.003)	(0.003)	(0.001)	(0.003)	(0.001)
Age		−0.004***	−0.004***	−0.004***	−0.000***	−0.004***	−0.000***
		(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Medium educ. (*ref.: low*)		0.012**	0.009	0.009	0.008	0.009	−0.001
		(0.006)	(0.006)	(0.006)	(0.007)	(0.006)	(0.006)
High education (*ref.: low*)		0.017***	0.017***	0.017**	0.012	0.017***	0.004
		(0.006)	(0.006)	(0.006)	(0.008)	(0.006)	(0.007)
Single		0.044***	0.046***	0.051***	−0.024***	0.047***	−0.021***
		(0.005)	(0.005)	(0.007)	(0.006)	(0.006)	(0.005)
No children		0.000	−0.004	−0.006*	0.010***	−0.004	0.005
		(0.003)	(0.003)	(0.003)	(0.004)	(0.003)	(0.003)
Urban location		0.028***	0.029***	0.033***	−0.022***	0.029***	−0.015**
		(0.004)	(0.004)	(0.006)	(0.008)	(0.004)	(0.007)
2nd inc. quint. (*ref.: poorest*)		−0.006*	−0.006	−0.006*	0.003	−0.006	0.002
		(0.003)	(0.003)	(0.003)	(0.002)	(0.003)	(0.002)
3rd inc. quint. (*poorest*)		−0.011***	−0.009**	−0.009**	−0.002	−0.009**	−0.001
		(0.004)	(0.004)	(0.004)	(0.002)	(0.004)	(0.002)
4th inc. quint. (*poorest*)		−0.016***	−0.013***	−0.013***	0.001	−0.013***	0.001
		(0.004)	(0.004)	(0.004)	(0.002)	(0.004)	(0.002)

(*Continued*)

Table B1 (*Continued*)

	OLS			IV: Accounts[b]		IV: Value/GDP[c]	
				2nd stage	1st stage	2nd stage	1st stage
	(1)	(2)	(3)	(4a)	(4b)	(5a)	(5b)
Richest inc. quint. (*poorest*)		−0.021*** (0.005)	−0.016*** (0.005)	−0.017*** (0.005)	0.003 (0.003)	−0.016*** (0.005)	0.004 (0.003)
Know someone abroad		0.091*** (0.005)	0.093*** (0.005)	0.089*** (0.006)	0.011* (0.006)	0.092*** (0.005)	0.014** (0.006)
Constant	−0.205 (0.175)	−0.064 (0.175)	−0.083 (0.177)	−0.545 (0.366)	1.810*** (0.233)	−0.132 (0.254)	1.619*** (0.225)
Kleibergen-Paap LM				9.220		30.326	
Kleibergen-Paap F				5.361		26.680	
Anderson-Rubin F				2.164		2.055	
Adjusted R^2	0.029	0.086	0.095	0.087		0.095	
Observations	282,381	282,381	282,381	282,381	282,381	282,381	282,381

*$p < 0.10$, **$p < 0.05$, ***$p < 0.01$.

[a]V-Dem Political corruption index.

[b]IV accounts: log no. of debit/credit/e-money accounts per capita.

[c]IV value: log monetary value of cashless payments relative to GDP.

Note: Robust SE in parentheses clustered at country-year level.

Source: V-Dem, World Bank, UN, UCDP, GWP, Cato, weighted data, own calculations.

Table B2 Full regression table for plans to emigration within the next 12 months

	OLS			IV: Accounts[b]		IV: Value/GDP[c]	
				2nd stage	1st stage	2nd stage	1st stage
	(1)	(2)	(3)	(4a)	(4b)	(5a)	(5b)
Corruption[a]	0.020** (0.009)	0.019** (0.008)	0.016** (0.008)	0.105** (0.041)		0.050** (0.020)	
IV: accounts and value					−0.012* (0.007)		−0.037*** (0.008)
IV: corruption 1950					0.146*** (0.048)		0.196*** (0.045)
Corruption perception			0.006*** (0.001)	0.004*** (0.001)	0.018*** (0.007)	0.006*** (0.001)	0.016** (0.007)
Disagree w/work hard,…			0.008*** (0.001)	0.006*** (0.002)	0.026*** (0.008)	0.008*** (0.001)	0.015** (0.007)
GDP p.c. (log)	−0.009* (0.005)	−0.010** (0.005)	−0.010** (0.005)	−0.006 (0.006)	−0.035 (0.026)	−0.009* (0.005)	−0.025 (0.023)
GINI	0.034*** (0.010)	0.017 (0.010)	0.023** (0.010)	0.023 (0.015)	0.014 (0.106)	0.023** (0.011)	0.134 (0.110)
Financial development	−0.025*** (0.009)	−0.005 (0.009)	−0.003 (0.009)	0.020 (0.016)	−0.244*** (0.073)	0.005 (0.011)	−0.144* (0.076)
Political stability	−0.001 (0.003)	0.000 (0.003)	0.001 (0.003)	0.006 (0.004)	−0.042* (0.024)	0.003 (0.003)	−0.050** (0.024)

(*Continued*)

Table B2 (*Continued*)

	OLS			IV: Accounts[b]		IV: Value/GDP[c]	
				2nd stage	1st stage	2nd stage	1st stage
	(1)	(2)	(3)	(4a)	(4b)	(5a)	(5b)
Conflict (>25 BRD)	−0.006	−0.006	−0.006	−0.007	0.021	−0.006	0.003
	(0.004)	(0.004)	(0.004)	(0.006)	(0.041)	(0.005)	(0.042)
Human Freedom Index	0.014***	0.012***	0.011***	0.023***	−0.137***	0.016***	−0.144***
	(0.003)	(0.003)	(0.003)	(0.006)	(0.025)	(0.004)	(0.024)
Female		−0.006***	−0.006***	−0.006***	−0.000	−0.006***	−0.000
		(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Age		−0.000***	−0.000***	−0.000***	−0.000***	−0.000***	−0.000***
		(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Medium educ. (*ref.: low*)		0.001	0.001	0.001	0.008	0.001	−0.001
		(0.001)	(0.001)	(0.001)	(0.007)	(0.001)	(0.006)
High education (*ref.: low*)		0.006***	0.006***	0.006***	0.012	0.006***	0.004
		(0.002)	(0.002)	(0.002)	(0.008)	(0.002)	(0.007)
Single		0.007***	0.007***	0.009***	−0.024***	0.008***	−0.021***
		(0.001)	(0.001)	(0.002)	(0.006)	(0.002)	(0.005)
No children		0.003***	0.003***	0.002*	0.010***	0.002**	0.005
		(0.001)	(0.001)	(0.001)	(0.004)	(0.001)	(0.003)
Urban location		0.007***	0.008***	0.009***	−0.022***	0.008***	−0.015**
		(0.001)	(0.001)	(0.002)	(0.008)	(0.001)	(0.007)
2nd inc. quint. (*ref.: poorest*)		−0.002*	−0.002*	−0.002**	0.003	−0.002**	0.002
		(0.001)	(0.001)	(0.001)	(0.002)	(0.001)	(0.002)
3rd inc. quint. (*poorest*)		−0.004***	−0.004***	−0.004***	−0.002	−0.004***	−0.001
		(0.001)	(0.001)	(0.001)	(0.002)	(0.001)	(0.002)
4th inc. quint. (*poorest*)		−0.005***	−0.005***	−0.005***	0.001	−0.005***	0.001
		(0.001)	(0.001)	(0.001)	(0.002)	(0.001)	(0.002)
Richest inc. quint. (*poorest*)		−0.002	−0.002	−0.002	0.003	−0.002	0.004
		(0.001)	(0.001)	(0.003)	(0.003)	(0.001)	(0.003)
Know someone abroad		0.030***	0.031***	0.029***	0.011*	0.030***	0.014**
		(0.002)	(0.002)	(0.002)	(0.006)	(0.002)	(0.006)
Constant	−0.011	0.025	0.023	−0.156*	1.810***	−0.045	1.619***
	(0.046)	(0.045)	(0.045)	(0.092)	(0.233)	(0.055)	(0.225)
Kleibergen-Paap LM				9.220		30.326	
Kleibergen-Paap F				5.361		26.680	
Anderson-Rubin F statistic				5.789		5.408	
Adjusted R^2	0.007	0.024	0.025	0.015		0.023	
Observations	282,381	282,381	282,381	282,381	282,381	282,381	282,381

*$p < 0.10$, **$p < 0.05$, ***$p < 0.01$.

[a]V-Dem Political corruption index.

[b]IV accounts: log no. of debit/credit/e-money accounts per capita.

[c]IV value: log monetary value of cashless payments relative to GDP.

Note: Robust SE in parentheses clustered at country-year level.

Source: V-Dem, World Bank, UN, UCDP, GWP, Cato, weighted data, own calculations.

C Results using WGI corruption

Table C1 Full regression table for emigration desire (inverse of WGI corruption control)

	OLS			IV: Accounts[b]		IV: Value/GDP[c]	
				2nd stage	1st stage	2nd stage	1st stage
	(1)	(2)	(3)	(4a)	(4b)	(5a)	(5b)
Corruption[a]	0.154***	0.150***	0.050	0.343**		0.212*	
	(0.050)	(0.048)	(0.049)	(0.168)		(0.110)	
IV: accounts and value					−0.009*		−0.028***
					(0.005)		(0.005)
IV: corruption 1950					0.158***		0.196***
					(0.024)		(0.023)
Corruption perception			0.057***	0.043***	0.043***	0.049***	0.041***
			(0.004)	(0.009)	(0.004)	(0.007)	(0.004)
Disagree w/work hard,…			0.069***	0.061***	0.030***	0.065***	0.021***
			(0.006)	(0.007)	(0.005)	(0.007)	(0.004)
GDP p.c. (log)	−0.038***	−0.040***	−0.039***	−0.032**	−0.010	−0.035**	−0.002
	(0.014)	(0.014)	(0.015)	(0.016)	(0.015)	(0.015)	(0.014)
	0.200***	0.097*	0.155***	0.136**	0.081	0.145**	0.172**
	(0.057)	(0.058)	(0.058)	(0.063)	(0.063)	(0.059)	(0.067)
Financial development	−0.139***	−0.072*	−0.091**	0.022	−0.372***	−0.029	−0.295***
	(0.043)	(0.042)	(0.041)	(0.072)	(0.041)	(0.054)	(0.041)
Political stability	−0.014	−0.010	−0.011	0.011	−0.057***	0.001	−0.063***
	(0.015)	(0.015)	(0.015)	(0.020)	(0.013)	(0.016)	(0.013)
Conflict (>25 BRD)	−0.066**	−0.069***	−0.070***	−0.057*	−0.036	−0.063**	−0.050**
	(0.026)	(0.027)	(0.026)	(0.030)	(0.024)	(0.028)	(0.025)
	0.081***	0.084***	0.067***	0.094***	−0.085***	0.082***	−0.091***
	(0.012)	(0.012)	(0.011)	(0.017)	(0.012)	(0.015)	(0.011)
Female		−0.029***	−0.031***	−0.031***	0.001**	−0.031***	0.001**
		(0.003)	(0.003)	(0.003)	(0.001)	(0.003)	(0.000)
Age		−0.004***	−0.004***	−0.004***	−0.000	−0.004***	−0.000
		(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Medium educ. (*ref.: low*)		0.012**	0.010	0.008	0.010**	0.009	0.003
		(0.006)	(0.006)	(0.006)	(0.004)	(0.006)	(0.004)
High education (*ref.: low*)		0.017***	0.017***	0.017***	0.012**	0.017***	0.006
		(0.006)	(0.006)	(0.006)	(0.005)	(0.006)	(0.004)
Single		0.041***	0.043***	0.045***	−0.007*	0.044***	−0.004
		(0.005)	(0.005)	(0.006)	(0.003)	(0.005)	(0.003)
No children		0.000	−0.004	−0.006*	0.011***	−0.005	0.007***
		(0.003)	(0.003)	(0.004)	(0.002)	(0.003)	(0.002)
Urban location		0.026***	0.026***	0.029***	−0.012***	0.028***	−0.007*
		(0.004)	(0.004)	(0.005)	(0.004)	(0.004)	(0.004)
2nd inc. quint. (*ref.: poorest*)		−0.005	−0.005	−0.005	0.001	−0.005	0.000
		(0.003)	(0.003)	(0.001)	(0.001)	(0.003)	(0.001)
3rd inc. quint. (*poorest*)		−0.011***	−0.009**	−0.009**	−0.001	−0.009**	−0.001
		(0.004)	(0.004)	(0.004)	(0.001)	(0.004)	(0.001)
4th inc. quint. (*poorest*)		−0.015***	−0.012***	−0.012***	−0.002**	−0.012***	−0.002*
		(0.004)	(0.004)	(0.004)	(0.001)	(0.004)	(0.001)

(*Continued*)

Table C1 (*Continued*)

	OLS			IV: Accounts[b]		IV: Value/GDP[c]	
				2nd stage	1st stage	2nd stage	1st stage
	(1)	(2)	(3)	(4a)	(4b)	(5a)	(5b)
Richest inc. quint. (*poorest*)		−0.020*** (0.005)	−0.016*** (0.005)	−0.015*** (0.005)	−0.002 (0.002)	−0.015*** (0.005)	−0.001 (0.002)
Know someone abroad		0.091*** (0.005)	0.094*** (0.005)	0.089*** (0.006)	0.010** (0.004)	0.092*** (0.005)	0.013*** (0.004)
Constant	−0.112 (0.179)	0.045 (0.180)	0.132 (0.183)	−0.312 (0.300)	1.283*** (0.148)	−0.113 (0.241)	1.138*** [v]
Kleibergen-Paap LM				29.981		46.425	
Kleibergen-Paap F				23.560		51.876	
Anderson-Rubin F				2.164		2.055	
Adjusted R^2	0.026	0.083	0.092	0.087		0.091	
Observations	282,381	282,381	282,381	282,381	282,381	282,381	282,381

*$p < 0.10$, **$p < 0.05$, ***$p < 0.01$.

[a]V-Dem Political corruption index.

[b]IV accounts: log no. of debit/credit/e-money accounts per capita.

[c]IV value: log monetary value of cashless payments relative to GDP.

Note: Robust SE in parentheses clustered at country-year level.

Source: V-Dem, World Bank, UN, UCDP, GWP, Cato, weighted data, own calculations.

Table C2 Full regression table for plans to emigration within the next 12 months (inverse of WGI corruption control)

	OLS			IV: Accounts[b]		IV: Value/GDP[c]	
				2nd stage	1st stage	2nd stage	1st stage
	(1)	(2)	(3)	(4a)	(4b)	(5a)	(5b)
Corruption[a]	0.039*** (0.010)	0.034*** (0.010)	0.023** (0.010)	0.099*** (0.031)		0.064*** (0.022)	
IV: accounts and value					−0.009* (0.005)		−0.028*** (0.005)
IV: corruption 1950					0.158*** (0.024)		0.196*** (0.023)
Corruption perception			0.006*** (0.001)	0.002 (0.002)	0.043*** (0.004)	0.004** (0.001)	0.041*** (0.004)
Disagree w/work hard,…			0.008*** (0.001)	0.006*** (0.001)	0.030*** (0.005)	0.007*** (0.001)	0.021*** (0.004)
GDP p.c. (log)	−0.009* (0.005)	−0.011** (0.005)	−0.010** (0.005)	−0.009* (0.005)	−0.010 (0.015)	−0.010* (0.005)	−0.002 (0.014)
GINI	0.032*** (0.010)	0.015 (0.010)	0.022** (0.010)	0.017 (0.012)	0.081 (0.063)	0.019* (0.011)	0.172** (0.067)
Financial development	−0.015* (0.008)	0.003 (0.008)	0.001 (0.008)	0.030* (0.016)	−0.372*** (0.041)	0.017 (0.013)	−0.295*** (0.041)
Political stability	0.001 (0.003)	0.002 (0.003)	0.002 (0.003)	0.007** (0.004)	−0.057*** (0.013)	0.005 (0.003)	−0.063*** (0.013)

(*Continued*)

Table C2 (*Continued*)

	OLS			IV: Accounts[b]		IV: Value/GDP[c]	
				2nd stage	1st stage	2nd stage	1st stage
	(1)	(2)	(3)	(4a)	(4b)	(5a)	(5b)
Conflict (>25 BRD)	−0.003	−0.004	−0.004	−0.001	−0.036	−0.002	−0.050**
	(0.004)	(0.004)	(0.004)	(0.005)	(0.024)	(0.005)	(0.025)
Human Freedom Index	0.015***	0.013***	0.011***	0.018***	−0.085***	0.014***	−0.091***
	(0.003)	(0.003)	(0.003)	(0.003)	(0.012)	(0.003)	(0.011)
Female		−0.006***	−0.006***	−0.006***	0.001**	−0.006***	0.001**
		(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.000)
Age		−0.000***	−0.000***	−0.000***	−0.000	−0.000***	−0.000
		(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Medium educ. (*ref.: low*)		0.001	0.001	0.001	0.010**	0.001	0.003
		(0.001)	(0.001)	(0.001)	(0.004)	(0.001)	(0.004)
High education (*ref.: low*)		0.006***	0.006***	0.006***	0.012**	0.006***	0.006
		(0.002)	(0.002)	(0.002)	(0.005)	(0.002)	(0.004)
Single		0.007***	0.007***	0.008***	−0.007*	0.007***	−0.004
		(0.001)	(0.001)	(0.002)	(0.003)	(0.002)	(0.003)
No children		0.003***	0.003***	0.002*	0.011***	0.002**	0.007***
		(0.001)	(0.001)	(0.001)	(0.002)	(0.001)	(0.002)
Urban location		0.007***	0.007***	0.008***	−0.012***	0.008***	−0.007*
		(0.001)	(0.001)	(0.001)	(0.004)	(0.001)	(0.004)
2nd inc. quint. (*ref.: poorest*)		−0.002*	−0.002*	−0.002*	0.001	−0.002*	0.000
		(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
3rd inc. quint. (*poorest*)		−0.004***	−0.004***	−0.004***	−0.001	−0.004***	−0.001
		(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
4th inc. quint. (*poorest*)		−0.005***	−0.005***	−0.005***	−0.002**	−0.005***	−0.002*
		(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Richest inc. quint. (*poorest*)		−0.002	−0.001	−0.001	−0.002	−0.001	−0.001
		(0.001)	(0.001)	(0.001)	(0.002)	(0.001)	(0.002)
Know someone abroad		0.030***	0.030***	0.029***	0.010**	0.030***	0.013***
		(0.002)	(0.002)	(0.002)	(0.004)	(0.002)	(0.004)
Constant	−0.031	0.012	0.021	−0.093	1.283***	−0.040	1.138***
	(0.048)	(0.048)	(0.048)	(0.062)	(0.148)	(0.051)	(0.146)
Kleibergen-Paap LM				29.981		46.425	
Kleibergen-Paap F				23.560		51.876	
Anderson-Rubin F				5.789		5.408	
Adjusted R^2	0.007	0.024	0.025	0.022		0.024	
Observations	282,381	282,381	282,381	282,381	282,381	282,381	282,381

*$p < 0.10$, **$p < 0.05$, ***$p < 0.01$.

[a]V-Dem Political corruption index.

[b]IV accounts: log no. of debit/credit/e-money accounts per capita.

[c]IV value: log monetary value of cashless payments relative to GDP.

Note: Robust SE in parentheses clustered at country-year level.

Source: V-Dem, World Bank, UN, UCDP, GWP, Cato, weighted data, own calculations.

D **Results using CPI corruption**

Table D1 Full regression table for emigration desire (inverse of CPI corruption control)

	OLS			IV: Accounts[b]		IV: Value/GDP[c]	
				2nd stage	1st stage	2nd stage	1st stage
	(1)	(2)	(3)	(4a)	(4b)	(5a)	(5b)
Corruption[a]	0.093*	0.097**	−0.005	0.338*		0.257**	
	(0.049)	(0.047)	(0.048)	(0.173)		(0.131)	
IV: accounts and value					−0.008*		−0.020***
					(0.005)		(0.004)
IV: corruption 1950					0.160***		0.187***
					(0.023)		(0.023)
Corruption perception			0.060***	0.043***	0.043***	0.047***	0.042***
			(0.004)	(0.010)	(0.004)	(0.008)	(0.004)
Disagree w/work hard,…			0.071***	0.063***	0.025***	0.065***	0.018***
			(0.006)	(0.007)	(0.005)	(0.006)	(0.004)
GDP p.c. (log)	−0.039***	−0.041***	−0.040***	−0.031*	−0.015	−0.033**	−0.010
	(0.014)	(0.015)	(0.014)	(0.018)	(0.015)	(0.017)	(0.015)
GINI	0.201***	0.098*	0.158***	0.137**	0.080	0.142**	0.145**
	(0.057)	(0.059)	(0.058)	(0.064)	(0.060)	(0.061)	(0.065)
Financial development	−0.167***	−0.096**	−0.112***	0.008	−0.341***	−0.020	−0.289***
	(0.044)	(0.043)	(0.042)	(0.070)	(0.039)	(0.057)	(0.040)
Political stability	−0.018	−0.014	−0.016	0.011	−0.058***	0.005	−0.063***
	(0.016)	(0.016)	(0.015)	(0.021)	(0.013)	(0.017)	(0.014)
Conflict (>25 BRD)	−0.068***	−0.071***	−0.073***	−0.053*	−0.047**	−0.058**	−0.057**
	(0.026)	(0.026)	(0.025)	(0.031)	(0.023)	(0.029)	(0.024)
Human Freedom Index	0.074***	0.077***	0.062***	0.087***	−0.067***	0.082***	−0.071***
	(0.012)	(0.011)	(0.011)	(0.016)	(0.011)	(0.015)	(0.011)
Female		−0.029***	−0.031***	−0.031***	0.001**	−0.031***	0.001**
		(0.003)	(0.003)	(0.003)	(0.000)	(0.003)	(0.000)
Age		−0.004***	−0.004***	−0.004***	−0.000	−0.004***	−0.000
		(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Medium educ. (*ref.: low*)		0.012**	0.010	0.009	0.008**	0.009	0.003
		(0.006)	(0.006)	(0.006)	(0.004)	(0.006)	(0.004)
High education (*ref.: low*)		0.017***	0.017***	0.017***	0.011**	0.017***	0.007
		(0.007)	(0.007)	(0.007)	(0.005)	(0.006)	(0.004)
Single		0.040***	0.043***	0.044***	−0.004	0.043***	−0.002
		(0.005)	(0.005)	(0.005)	(0.003)	(0.005)	(0.003)
No children		0.001	−0.003	−0.006*	0.010***	−0.005	0.007***
		(0.003)	(0.003)	(0.004)	(0.002)	(0.003)	(0.002)
Urban location		0.026***	0.026***	0.029***	−0.011**	0.028***	−0.007*
		(0.004)	(0.004)	(0.005)	(0.004)	(0.004)	(0.004)
2nd inc. quint. (*ref.: poorest*)		−0.006	−0.005	−0.005	0.001	−0.005	0.001
		(0.003)	(0.003)	(0.003)	(0.001)	(0.003)	(0.001)
3rd inc. quint. (*poorest*)		−0.011***	−0.009**	−0.010***	−0.000	−0.010***	0.000
		(0.004)	(0.004)	(0.004)	(0.001)	(0.004)	(0.001)
4th inc. quint. (*poorest*)		−0.015***	−0.012***	−0.012***	−0.002	−0.012***	−0.001
		(0.004)	(0.004)	(0.004)	(0.001)	(0.004)	(0.001)

(*Continued*)

Table D1 (*Continued*)

	OLS			IV: Accounts[b]		IV: Value/GDP[c]	
				2nd stage	1st stage	2nd stage	1st stage
	(1)	(2)	(3)	(4a)	(4b)	(5a)	(5b)
Richest inc. quint. (*poorest*)		−0.020*** (0.005)	−0.016*** (0.005)	−0.015*** (0.005)	−0.002 (0.002)	−0.015*** (0.005)	−0.001 (0.002)
Know someone abroad		0.093*** (0.005)	0.095*** (0.005)	0.092*** (0.005)	0.003 (0.004)	0.093*** (0.005)	0.005 (0.004)
Constant	−0.010 (0.175)	0.138 (0.175)	0.214 (0.174)	−0.273 (0.302)	1.192*** (0.142)	−0.158 (0.262)	1.091*** (0.150)
Kleibergen-Paap LM				30.816		35.904	
Kleibergen-Paap F				25.340		36.128	
Anderson-Rubin F				2.164		2.055	
Adjusted R^2	0.025	0.082	0.092	0.086		0.088	
Observations	282,381	282,381	282,381	282,381	282,381	282,381	282,381

*$p < 0.10$, **$p < 0.05$, ***$p < 0.01$.

[a]V-Dem Political corruption index.

[b]IV accounts: log no. of debit/credit/e-money accounts per capita.

[c]IV value: log monetary value of cashless payments relative to GDP.

Note: Robust SE in parentheses clustered at country-year level.

Source: V-Dem, World Bank, UN, UCDP, GWP, Cato, weighted data, own calculations.

Table D2 Full regression table for plans to emigration within the next 12 months (inverse of CPI corruption control)

	OLS			IV: Accounts[b]		IV: Value/GDP[c]	
				2nd stage	1st stage	2nd stage	1st stage
	(1)	(2)	(3)	(4a)	(4b)	(5a)	(5b)
Corruption[a]	0.027** (0.012)	0.024** (0.011)	0.013 (0.011)	0.098*** (0.032)		0.077*** (0.026)	
IV: accounts and value					−0.008* (0.005)		−0.020*** (0.004)
IV: corruption 1950					0.160*** (0.023)		0.187*** (0.023)
Corruption perception			0.006*** (0.001)	0.002 (0.002)	0.043*** (0.004)	0.003* (0.002)	0.042*** (0.004)
Disagree w/work hard,…			0.008*** (0.001)	0.007*** (0.001)	0.025*** (0.005)	0.007*** (0.001)	0.018*** (0.004)
GDP p.c. (log)	−0.009* (0.005)	−0.011** (0.005)	−0.011** (0.005)	−0.008 (0.006)	−0.015 (0.015)	−0.009 (0.005)	−0.010 (0.015)
GINI	0.032*** (0.010)	0.015 (0.010)	0.022** (0.010)	0.017 (0.012)	0.080 (0.060)	0.018 (0.011)	0.145** (0.065)
Financial development	−0.021*** (0.008)	−0.001 (0.008)	−0.003 (0.007)	0.027* (0.016)	−0.341*** (0.039)	0.019 (0.014)	−0.289*** (0.040)
Political stability	−0.000 (0.003)	0.001 (0.003)	0.001 (0.003)	0.007** (0.004)	−0.058*** (0.013)	0.006* (0.003)	−0.063*** (0.014)

(*Continued*)

Table D2 (*Continued*)

	OLS			IV: Accounts[b]		IV: Value/GDP[c]	
				2nd stage	1st stage	2nd stage	1st stage
	(1)	(2)	(3)	(4a)	(4b)	(5a)	(5b)
Conflict (>25 BRD)	−0.004	−0.004	−0.005	0.000	−0.047**	−0.001	−0.057**
	(0.004)	(0.004)	(0.004)	(0.005)	(0.023)	(0.005)	(0.024)
Human Freedom Index	0.014***	0.011***	0.010***	0.016***	−0.067***	0.014***	−0.071***
	(0.002)	(0.002)	(0.002)	(0.003)	(0.011)	(0.003)	(0.011)
Female		−0.006***	−0.006***	−0.006***	0.001**	−0.006***	0.001**
		(0.001)	(0.001)	(0.001)	(0.000)	(0.001)	(0.000)
Age		−0.000***	−0.000***	−0.000***	−0.000	−0.000***	−0.000
		(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Medium educ. (*ref.: low*)		0.001	0.001	0.001	0.008**	0.001	0.003
		(0.001)	(0.001)	(0.001)	(0.004)	(0.001)	(0.004)
High education (*ref.: low*)		0.006***	0.006***	0.006***	0.011**	0.006***	0.007
		(0.002)	(0.002)	(0.002)	(0.005)	(0.002)	(0.004)
Single		0.007***	0.007***	0.007***	−0.004	0.007***	−0.002
		(0.001)	(0.001)	(0.002)	(0.003)	(0.002)	(0.003)
No children		0.003***	0.003***	0.002**	0.010***	0.002**	0.007***
		(0.001)	(0.001)	(0.001)	(0.002)	(0.001)	(0.002)
Urban location		0.007***	0.007***	0.008***	−0.011**	0.008***	−0.007*
		(0.001)	(0.001)	(0.001)	(0.004)	(0.001)	(0.004)
2nd inc. quint. (*ref.: poorest*)		−0.002*	−0.002*	−0.002*	0.001	−0.002*	0.001
		(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
3rd inc. quint. (*poorest*)		−0.004***	−0.004***	−0.004***	−0.000	−0.004***	0.000
		(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
4th inc. quint. (*poorest*)		−0.005***	−0.005***	−0.005***	−0.002	−0.005***	−0.001
		(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Richest inc. quint. (*poorest*)		−0.002	−0.001	−0.001	−0.002	−0.001	−0.001
		(0.001)	(0.001)	(0.001)	(0.002)	(0.001)	(0.002)
Know someone abroad		0.030***	0.031***	0.030***	0.003	0.030***	0.005
		(0.002)	(0.002)	(0.002)	(0.004)	(0.002)	(0.004)
Constant	−0.010	0.029	0.037	−0.083	1.192***	−0.054	1.091***
	(0.052)	(0.051)	(0.052)	(0.063)	(0.142)	(0.056)	(0.150)
Kleibergen-Paap LM				30.816		35.904	
Kleibergen-Paap F				25.340		36.128	
Anderson-Rubin F				5.789		5.408	
Adjusted R^2	0.007	0.023	0.025	0.021		0.023	
Observations	282,381	282,381	282,381	282,381	282,381	282,381	282,381

*$p < 0.10$, **$p < 0.05$, ***$p < 0.01$.

[a]V-Dem Political corruption index.

[b]IV accounts: log no. of debit/credit/e-money accounts per capita.

[c]IV value: log monetary value of cashless payments relative to GDP.

Note: Robust SE in parentheses clustered at country-year level.

Source: V-Dem, World Bank, UN, UCDP, GWP, Cato, weighted data, own calculations.

Table E1 Sub-sample analysis

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	Rich countries[1]		Poor countries[1]		Equal countries[2]		Unequal countries[2]		Stable countries[3]		Unstable countries[3]	
	IV accounts	IV value	IV accounts	IV value	IV accounts	IV value	IV accounts	IV value	IV accounts	IV value	IV accounts	IV value
Panel A: emigration desire												
Corruption	0.482	0.424*	0.438***	0.269**	0.148	0.103	0.396***	0.254**	0.300**	0.315***	0.745*	−0.234
	(0.552)	(0.253)	(0.116)	(0.116)	(0.438)	(0.065)	(0.091)	(0.104)	(0.140)	(0.072)	(0.445)	(0.344)
Panel B: emigration plans												
	0.203	0.053	0.062***	0.057**	−0.146	0.010	0.055***	0.057***	−0.146	0.010	0.055***	0.057***
	(0.216)	(0.041)	(0.021)	(0.024)	(0.161)	(0.012)	(0.017)	(0.021)	(0.161)	(0.012)	(0.017)	(0.021)
First stage	−0.001	−0.034**	−0.135***	−0.037***	0.002	−0.069***	−0.092***	−0.027***	−0.011*	−0.059***	−0.068*	−0.018*
	(0.005)	(0.017)	(0.033)	(0.008)	(0.007)	(0.009)	(0.025)	(0.010)	(0.006)	(0.011)	(0.039)	(0.010)
Kl-Pa LM	1.332	7.681	15.634	18.775	0.876	18.826	25.283	20.878	10.191	38.655	2.715	2.957
Kl-Pa F	0.657	4.244	9.238	18.176	0.430	30.401	28.929	30.344	8.034	34.053	1.550	1.954
A-R F	0.681	2.389	11.220	5.031	0.111	1.230	11.725	3.053	1.379	10.065	7.501	3.241
Adj. R^2	0.067	0.069	0.096	0.107	0.088	0.089	0.093	0.098	0.099	0.098	0.025	0.083
Observations	110638	110638	171743	171743	150571	150571	131810	131810	151850	151850	130531	130531

*$p < 0.10$, **$p < 0.05$, ***$p < 0.01$.

Sub-samples if value above (below) global average

[1]GDP p.c.

[2]GINI coefficient

[3]Political Stability Index.

Notes: Robust SE in parentheses clustered at country-year level.

Source: V-Dem, World Bank, UN, UCDP, GWP, Cato, weighted data, own calculations.